Brent H Shanks

List of Publications by Year
in descending order

149 papers	10,601 citations	28736 57 h-index	39744 98 g-index
149 all docs	149 docs citations	149 times ranked	10880 citing authors

#	Article	IF	Citations
1	Influence of inorganic salts on the primary pyrolysis products of cellulose. Bioresource Technology, 2010, 101, 4646-4655.	4.8	668
2	Catalytic dehydration of C₆carbohydrates for the production of hydroxymethylfurfural (HMF) as a versatile platform chemical. Green Chemistry, 2014, 16, 548-572.	4.6	523
3	Production of 5-Hydroxymethylfurfural from Glucose Using a Combination of Lewis and BrÃ¸nsted Acid Catalysts in Water in a Biphasic Reactor with an Alkylphenol Solvent. ACS Catalysis, 2012, 2, 930-934.	5.5	455
4	Product distribution from fast pyrolysis of glucose-based carbohydrates. Journal of Analytical and Applied Pyrolysis, 2009, 86, 323-330.	2.6	400
5	Understanding the Fast Pyrolysis of Lignin. ChemSusChem, 2011, 4, 1629-1636.	3.6	399
6	Product Distribution from the Fast Pyrolysis of Hemicellulose. ChemSusChem, 2011, 4, 636-643.	3.6	370
7	Distinguishing primary and secondary reactions of cellulose pyrolysis. Bioresource Technology, 2011, 102, 5265-5269.	4.8	295
8	Design of multifunctionalized mesoporous silicas for esterification of fatty acid. Journal of Catalysis, 2005, 229, 365-373.	3.1	260
9	Celluloseâ€“Hemicellulose and Celluloseâ€“Lignin Interactions during Fast Pyrolysis. ACS Sustainable Chemistry and Engineering, 2015, 3, 293-301.	3.2	245
10	The deleterious effect of inorganic salts on hydrocarbon yields from catalytic pyrolysis of lignocellulosic biomass and its mitigation. Applied Energy, 2015, 148, 115-120.	5.1	186
11	Platform biochemicals for a biorenewable chemical industry. Plant Journal, 2008, 54, 536-545.	2.8	165
12	Bridging the Chemical and Biological Catalysis Gap: Challenges and Outlooks for Producing Sustainable Chemicals. ACS Catalysis, 2014, 4, 2060-2069.	5.5	160
13	Experimental and Mechanistic Modeling of Fast Pyrolysis of Neat Glucose-Based Carbohydrates. 1. Experiments and Development of a Detailed Mechanistic Model. Industrial & Engineering Chemistry Research, 2014, 53, 13274-13289.	1.8	160
14	Effect of sulfur and temperature on ruthenium-catalyzed glycerol hydrogenolysis to glycols. Journal of Catalysis, 2005, 232, 386-394.	3.1	154
15	Active species of copper chromite catalyst in Câ€“O hydrogenolysis of 5-methylfurfuryl alcohol. Journal of Catalysis, 2012, 285, 235-241.	3.1	154
16	Development of a CaO-Based CO₂ Sorbent with Improved Cyclic Stability. Industrial & Engineering Chemistry Research, 2008, 47, 7841-7848.	1.8	143
17	Conversion of oils and fats using advanced mesoporous heterogeneous catalysts. JAOCS, Journal of the American Oil Chemists' Society, 2006, 83, 79-91.	0.8	141
18	Surfactant-Assisted Synthesis of Alumina with Hierarchical Nanopores. Advanced Functional Materials, 2003, 13, 61-65.	7.8	137

#	Article	IF	Citations
19	Bioprivileged molecules: creating value from biomass. Green Chemistry, 2017, 19, 3177-3185.	4.6	137
20	Acidâ€"base cooperativity in condensation reactions with functionalized mesoporous silica catalysts. Journal of Catalysis, 2009, 263, 181-188.	3.1	129
21	Oxidative Polymerization of 1,4-Diethynylbenzene into Highly Conjugated Poly(phenylene) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 Materials. Journal of the American Chemical Society, 2002, 124, 9040-9041.	6.6	128
22	Electrocatalytic Nitrate Reduction on Oxide-Derived Silver with Tunable Selectivity to Nitrite and Ammonia. ACS Catalysis, 2021, 11, 8431-8442.	5.5	125
23	Kinetic Analysis of the Hydrogenolysis of Lower Polyhydric Alcohols:Â Glycerol to Glycols. Industrial & Engineering Chemistry Research, 2003, 42, 5467-5472.	1.8	124
24	Triacetic acid lactone as a potential biorenewable platform chemical. Green Chemistry, 2012, 14, 1850.	4.6	117
25	Effects of chloride ions in acid-catalyzed biomass dehydration reactions in polar aprotic solvents. Nature Communications, 2019, 10, 1132.	5.8	117
26	Paired electrocatalytic hydrogenation and oxidation of 5-(hydroxymethyl)furfural for efficient production of biomass-derived monomers. Green Chemistry, 2019, 21, 6210-6219.	4.6	116
27	The Alphaâ€"Bet(a) of Glucose Pyrolysis: Computational and Experimental Investigations of 5-Hydroxymethylfurfural and Levoglucosan Formation Reveal Implications for Cellulose Pyrolysis. ACS Sustainable Chemistry and Engineering, 2014, 2, 1461-1473.	3.2	113
28	Hydrodeoxygenation of lignin model compounds over a copper chromite catalyst. Applied Catalysis A: General, 2012, 447-448, 144-150.	2.2	101
29	N- and S-doped mesoporous carbon as metal-free cathode catalysts for direct biorenewable alcohol fuel cells. Journal of Materials Chemistry A, 2016, 4, 83-95.	5.2	101
30	Esterification of biomass pyrolysis model acids over sulfonic acid-functionalized mesoporous silicas. Applied Catalysis A: General, 2009, 359, 113-120.	2.2	95
31	Development of a Novel Combined Catalyst and Sorbent for Hydrocarbon Reforming. Industrial & Engineering Chemistry Research, 2005, 44, 3901-3911.	1.8	94
32	A Perspective on Catalytic Strategies for Deoxygenation in Biomass Pyrolysis. Energy Technology, 2017, 5, 7-18.	1.8	94
33	Acidic Mesoporous Silica for the Catalytic Conversion of Fatty Acids in Beef Tallow. Industrial & Engineering Chemistry Research, 2006, 45, 3022-3028.	1.8	93
34	Acid strength variation due to spatial location of organosulfonic acid groups on mesoporous silica. Journal of Catalysis, 2006, 244, 78-85.	3.1	92
35	Pyrolysis reaction networks for lignin model compounds: unraveling thermal deconstruction of Î²-O-4 and Î±-O-4 compounds. Green Chemistry, 2016, 18, 1762-1773.	4.6	92
36	Catalytic conversion of carbohydrate-derived oxygenates over HZSM-5 in a tandem micro-reactor system. Green Chemistry, 2015, 17, 557-564.	4.6	91

#	Article	IF	Citations
37	Cellobiose hydrolysis using organicâ€“inorganic hybrid mesoporous silica catalysts. Applied Catalysis A: General, 2007, 327, 44-51.	2.2	89
38	Enhancing COâˆ’Water Mass Transfer by Functionalized MCM41 Nanoparticles. Industrial & Engineering Chemistry Research, 2008, 47, 7881-7887.	1.8	87
39	Improving Hydrothermal Stability of Supported Metal Catalysts for Biomass Conversions: A Review. ACS Catalysis, 2021, 11, 5248-5270.	5.5	86
40	Mechanism of acetic acid esterification over sulfonic acid-functionalized mesoporous silica. Journal of Catalysis, 2011, 279, 136-143.	3.1	79
41	Detailed characterization of red oak-derived pyrolysis oil: Integrated use of GC, HPLC, IC, GPC and Karl-Fischer. Journal of Analytical and Applied Pyrolysis, 2014, 110, 147-154.	2.6	78
42	Experimental and Mechanistic Modeling of Fast Pyrolysis of Neat Glucose-Based Carbohydrates. 2. Validation and Evaluation of the Mechanistic Model. Industrial & Engineering Chemistry Research, 2014, 53, 13290-13301.	1.8	76
43	Coupling chemical and biological catalysis: a flexible paradigm for producing biobased chemicals. Current Opinion in Biotechnology, 2016, 38, 54-62.	3.3	74
44	Deoxygenation of biomass pyrolysis vapors: Improving clarity on the fate of carbon. Renewable and Sustainable Energy Reviews, 2019, 104, 262-280.	8.2	74
45	Kinetics of glucose dehydration catalyzed by homogeneous Lewis acidic metal salts in water. Applied Catalysis A: General, 2015, 498, 214-221.	2.2	73
46	Insights into the Ceria-Catalyzed Ketonization Reaction for Biofuels Applications. ACS Catalysis, 2013, 3, 783-789.	5.5	72
47	Investigation of Primary Reactions and Secondary Effects from the Pyrolysis of Different Celluloses. ACS Sustainable Chemistry and Engineering, 2014, 2, 2820-2830.	3.2	72
48	Insights into the Hydrothermal Stability of ZSM-5 under Relevant Biomass Conversion Reaction Conditions. ACS Catalysis, 2015, 5, 4418-4422.	5.5	72
49	Ex situ hydrodeoxygenation in biomass pyrolysis using molybdenum oxide and low pressure hydrogen. Green Chemistry, 2016, 18, 134-138.	4.6	72
50	Solid state NMR study of chemical structure and hydrothermal deactivation of moderate-temperature carbon materials with acidic SO3H sites. Carbon, 2014, 74, 333-345.	5.4	67
51	Water-Compatible Lewis Acid-Catalyzed Conversion of Carbohydrates to 5-Hydroxymethylfurfural in a Biphasic Solvent System. Topics in Catalysis, 2012, 55, 657-662.	1.3	66
52	Probing the ruthenium-catalyzed higher polyol hydrogenolysis reaction through the use of stereoisomers. Green Chemistry, 2012, 14, 1635.	4.6	64
53	Upgrading of bio-oil: Effect of light aldehydes on acetic acid removal via esterification. Catalysis Communications, 2009, 11, 96-99.	1.6	62
54	Catalytic upgrading of the light fraction of a simulated bio-oil over CeZrOx catalyst. Applied Catalysis B: Environmental, 2013, 142-143, 368-376.	10.8	61

#	Article	IF	Citations
55	Effect of Mesoporosity on Thermal and Mechanical Properties of Polystyrene/Silica Composites. ACS Applied Materials & Interfaces, 2010, 2, 41-47.	4.0	59
56	Characterizing Substrateâ€"Surface Interactions on Alumina-Supported Metal Catalysts by Dynamic Nuclear Polarization-Enhanced Double-Resonance NMR Spectroscopy. Journal of the American Chemical Society, 2017, 139, 2702-2709.	6.6	59
57	Fast pyrolysis of glucoseâ€based carbohydrates with added NaCl part 1: Experiments and development of a mechanistic model. AIChE Journal, 2016, 62, 766-777.	1.8	57
58	Conversion of Biorenewable Feedstocks: New Challenges in Heterogeneous Catalysis. Industrial & Engineering Chemistry Research, 2010, 49, 10212-10217.	1.8	56
59	The Alphaâ€"Bet(a) of Salty Glucose Pyrolysis: Computational Investigations Reveal Carbohydrate Pyrolysis Catalytic Action by Sodium Ions. ACS Catalysis, 2015, 5, 192-202.	5.5	56
60	cis,cis-Muconic acid isomerization and catalytic conversion to biobased cyclic-C₆-1,4-diacid monomers. Green Chemistry, 2017, 19, 3042-3050.	4.6	55
61	A Comparative Study of Macroporous Metal Oxides Synthesized via a Unified Approach. Chemistry of Materials, 2009, 21, 2027-2038.	3.2	54
62	Sulfated Zirconia Modified SBA-15 Catalysts for Cellobiose Hydrolysis. Catalysis Letters, 2011, 141, 33-42.	1.4	54
63	Synthesis of Hierarchically Structured Aluminas under Controlled Hydrodynamic Conditions. Chemistry of Materials, 2005, 17, 3092-3100.	3.2	51
64	Ceria calcination temperature influence on acetic acid ketonization: Mechanistic insights. Applied Catalysis A: General, 2013, 451, 86-93.	2.2	50
65	Bifunctional mesoporous organicâ€"inorganic hybrid silica for combined one-step hydrogenation/esterification. Applied Catalysis A: General, 2010, 375, 310-317.	2.2	49
66	Sodium Ion Interactions with Aqueous Glucose: Insights from Quantum Mechanics, Molecular Dynamics, and Experiment. Journal of Physical Chemistry B, 2014, 118, 1990-2000.	1.2	49
67	Influence of alkali and alkaline earth metal salts on glucose conversion to 5-hydroxymethylfurfural in an aqueous system. Catalysis Communications, 2013, 30, 1-4.	1.6	46
68	A Combined Catalyst and Sorbent for Enhancing Hydrogen Production from Coal or Biomassâ€. Energy & Fuels, 2007, 21, 322-326.	2.5	45
69	Effect of functionalized MCM41 nanoparticles on syngas fermentation. Biomass and Bioenergy, 2010, 34, 1624-1627.	2.9	45
70	Fast pyrolysis of glucoseâ€based carbohydrates with added NaCl part 2: Validation and evaluation of the mechanistic model. AIChE Journal, 2016, 62, 778-791.	1.8	44
71	Improving the Stability of a CaO-Based Sorbent for CO₂ by Thermal Pretreatment. Industrial & Engineering Chemistry Research, 2011, 50, 6933-6942.	1.8	43
72	Tuning the Location of Niobia/Carbon Composites in a Biphasic Reaction: Dehydration of d-Glucose to 5-Hydroxymethylfurfural. Catalysis Letters, 2013, 143, 509-516.	1.4	40

#	Article	IF	Citations
73	Spectrally edited 2D 13C13C NMR spectra without diagonal ridge for characterizing 13C-enriched low-temperature carbon materials. Journal of Magnetic Resonance, 2013, 234, 112-124.	1.2	40
74	CeMO_{<i>x</i>}-Promoted Ketonization of Biomass-Derived Carboxylic Acids in the Condensed Phase. ACS Catalysis, 2014, 4, 512-518.	5.5	40
75	Steam Reforming of Bio-oil Fractions: Effect of Composition and Stability. Energy & Fuels, 2011, 25, 3289-3297.	2.5	38
76	Catalytic Deoxygenation of Bio-Oil Model Compounds over Acidâ€“Base Bifunctional Catalysts. ACS Catalysis, 2016, 6, 2608-2621.	5.5	38
77	Unleashing Biocatalysis/Chemical Catalysis Synergies for Efficient Biomass Conversion. ACS Chemical Biology, 2007, 2, 533-535.	1.6	36
78	Identifying low-coverage surface species on supported noble metal nanoparticle catalysts by DNP-NMR. Chemical Communications, 2016, 52, 1859-1862.	2.2	36
79	Hydrodeoxygenation of cellulose pyrolysis model compounds using molybdenum oxide and low pressure hydrogen. Green Chemistry, 2017, 19, 3654-3664.	4.6	36
80	Aldol Condensations Using Bio-oil Model Compounds: The Role of Acidâ€“Base Bi-functionality. Topics in Catalysis, 2010, 53, 1248-1253.	1.3	35
81	Enhancing bio-oil quality and energy recovery by atmospheric hydrodeoxygenation of wheat straw pyrolysis vapors using Pt and Mo-based catalysts. Sustainable Energy and Fuels, 2020, 4, 1991-2008.	2.5	35
82	Direct observation of macropore self-formation in hierarchically structured metal oxides. Chemical Communications, 2010, 46, 8980.	2.2	31
83	Application of a Combined Catalyst and Sorbent for Steam Reforming of Methane. Industrial & Engineering Chemistry Research, 2010, 49, 4091-4098.	1.8	31
84	Deoxygenation of wheat straw fast pyrolysis vapors over Na-Al2O3 catalyst for production of bio-oil with low acidity. Chemical Engineering Journal, 2020, 394, 124878.	6.6	31
85	Catalysis with ceria nanocrystals: Bio-oil model compound ketonization. Applied Catalysis A: General, 2013, 464-465, 288-295.	2.2	29
86	Hydrolysis of oligosaccharides from distillers grains using organicâ€“inorganic hybrid mesoporous silica catalysts. Bioresource Technology, 2008, 99, 5226-5231.	4.8	28
87	Effect of Electrolytes on COâˆ’Water Mass Transfer. Industrial & Engineering Chemistry Research, 2009, 48, 3206-3210.	1.8	28
88	Stability of Pd nanoparticles on carbon-coated supports under hydrothermal conditions. Catalysis Science and Technology, 2018, 8, 1151-1160.	2.1	28
89	Bioprivileged Molecules: Integrating Biological and Chemical Catalysis for Biomass Conversion. Annual Review of Chemical and Biomolecular Engineering, 2020, 11, 63-85.	3.3	27
90	The Influence of Alkali and Alkaline Earth Metals and the Role of Acid Pretreatments in Production of Sugars from Switchgrass Based on Solvent Liquefaction. Energy & Fuels, 2014, 28, 1111-1120.	2.5	26

#	Article	IF	Citations
91	A new selective route towards benzoic acid and derivatives from biomass-derived coumalic acid. Green Chemistry, 2017, 19, 4879-4888.	4.6	26
92	Evaluating lignin valorization <i>via</i> pyrolysis and vapor-phase hydrodeoxygenation for production of aromatics and alkenes. Green Chemistry, 2020, 22, 2513-2525.	4.6	25
93	Reducibility of Potassium-Promoted Iron Oxide under Hydrogen Conditions. Industrial & Engineering Chemistry Research, 2003, 42, 2112-2121.	1.8	24
94	Catalyst Property Effects on Product Distribution during the Hydrodeoxygenation of Lignin Pyrolysis Vapors over MoO₃/Î³-Al₂O₃. ACS Sustainable Chemistry and Engineering, 2021, 9, 6685-6696.	3.2	24
95	Comparison of impregnation and deposition precipitation for the synthesis of hydrothermally stable niobia/carbon. Applied Catalysis A: General, 2014, 471, 165-174.	2.2	23
96	A Technoeconomic Platform for Early-Stage Process Design and Cost Estimation of Joint Fermentativeâ€'Catalytic Bioprocessing. Processes, 2020, 8, 229.	1.3	23
97	Kinetics of monosaccharide conversion in the presence of homogeneous Bronsted acids. Applied Catalysis A: General, 2013, 450, 237-242.	2.2	22
98	Comparison of direct and indirect contact heat exchange to improve recovery of bio-oil. Applied Energy, 2019, 251, 113346.	5.1	21
99	The formation of p-toluic acid from coumalic acid: a reaction network analysis. Green Chemistry, 2017, 19, 3263-3271.	4.6	21
100	Improved hydrothermal stability of Pd nanoparticles on nitrogen-doped carbon supports. Catalysis Science and Technology, 2018, 8, 3548-3561.	2.1	20
101	Computational Framework for the Identification of Bioprivileged Molecules. ACS Sustainable Chemistry and Engineering, 2019, 7, 2414-2428.	3.2	20
102	Hydrothermal degradation of model sulfonic acid compounds: Probing the relative sulfurâ€"carbon bond strength in water. Catalysis Communications, 2014, 51, 33-36.	1.6	19
103	Carbon nanotubes as catalysts for direct carbohydrazide fuel cells. Carbon, 2015, 89, 142-147.	5.4	19
104	Catalytic deoxygenation during cellulose fast pyrolysis using acidâ€"base bifunctional catalysis. Catalysis Science and Technology, 2016, 6, 7468-7476.	2.1	19
105	Condensed Phase Deactivation of Solid BrÃ¸nsted Acids in the Dehydration of Fructose to Hydroxymethylfurfural. ACS Catalysis, 2019, 9, 11568-11578.	5.5	19
106	Performance of mesoporous HZSM-5 and Silicalite-1 coated mesoporous HZSM-5 catalysts for deoxygenation of straw fast pyrolysis vapors. Journal of Analytical and Applied Pyrolysis, 2020, 145, 104712.	2.6	19
107	Enhancement of Pt catalytic activity in the hydrogenation of aldehydes. Applied Catalysis A: General, 2011, 406, 81-88.	2.2	18
108	Performance-screening of metal-impregnated industrial HZSM-5/Î³-Al2O3 extrudates for deoxygenation and hydrodeoxygenation of fast pyrolysis vapors. Journal of Analytical and Applied Pyrolysis, 2020, 150, 104892.	2.6	18

#	Article	IF	Citations
109	Manipulation of chemical species in bio-oil using in situ catalytic fast pyrolysis in both a bench-scale fluidized bed pyrolyzer and micropyrolyzer. Biomass and Bioenergy, 2015, 81, 256-264.	2.9	17
110	A Robust Strategy for Sustainable Organic Chemicals Utilizing Bioprivileged Molecules. ChemSusChem, 2019, 12, 2970-2975.	3.6	17
111	Solvent-driven isomerization of <i>cis</i>,<i>cis</i>-muconic acid for the production of specialty and performance-advantaged cyclic biobased monomers. Green Chemistry, 2020, 22, 6444-6454.	4.6	17
112	Hydrolysis Characteristics of Tissue Fractions Resulting From Mechanical Separation of Corn Stover. Applied Biochemistry and Biotechnology, 2005, 125, 027-040.	1.4	16
113	Manipulation of mesoporous structure and crystallinity in spontaneously self-assembled hierarchical metal oxides. Microporous and Mesoporous Materials, 2010, 135, 105-115.	2.2	16
114	Tailoring the Composition of Bioâ€oil by Vaporâ€Phase Removal of Organic Acids. ChemSusChem, 2015, 8, 4256-4265.	3.6	16
115	The role of catalyst acidity and shape selectivity on products from the catalytic fast pyrolysis of beech wood. Journal of Analytical and Applied Pyrolysis, 2022, 162, 104710.	2.6	16
116	Cellulose conversion in dry grind ethanol plants. Bioresource Technology, 2008, 99, 5157-5159.	4.8	15
117	Characterization of the acidic sites in organic acid functionalized mesoporous silica in an aqueous media. Applied Catalysis A: General, 2011, 396, 76-84.	2.2	15
118	Reduction Behavior of Potassium-Promoted Iron Oxide under Mixed Steam/Hydrogen Atmospheres. Industrial & Engineering Chemistry Research, 2006, 45, 7427-7434.	1.8	14
119	Stability and phase transitions of potassium-promoted iron oxide in various gas phase environments. Applied Catalysis A: General, 2009, 354, 50-56.	2.2	14
120	Modulating Reactivity and Selectivity of 2-Pyrone-Derived Bicyclic Lactones through Choice of Catalyst and Solvent. ACS Catalysis, 2018, 8, 2450-2463.	5.5	14
121	Role of Cr and V on the stability of potassium-promoted iron oxides used as catalysts in ethylbenzene dehydrogenation. Applied Catalysis A: General, 2011, 405, 101-107.	2.2	13
122	On the selective acid-catalysed dehydration of 1,2,6-hexanetriol. Catalysis Science and Technology, 2014, 4, 2260.	2.1	13
123	Comparison of Fast Pyrolysis Behavior of Cornstover Lignins Isolated by Different Methods. ACS Sustainable Chemistry and Engineering, 2017, 5, 5657-5661.	3.2	13
124	Micro-pyrolyzer screening of hydrodeoxygenation catalysts for efficient conversion of straw-derived pyrolysis vapors. Journal of Analytical and Applied Pyrolysis, 2020, 150, 104868.	2.6	13
125	Renewable Production of Nylon-6,6 Monomers from Biomass-Derived 5-Hydroxymethylfurfural (HMF). Energy and Environment Focus, 2016, 5, 13-17.	0.3	13
126	Copper mixed metal oxide catalysts in the hydrogenolysis of 5-methylfurfuryl alcohol. Applied Catalysis A: General, 2014, 470, 390-397.	2.2	12

#	Article	IF	Citations
127	Synthesis and characterization of hierarchically structured aluminosilicates. Journal of Materials Chemistry, 2011, 21, 7364.	6.7	11
128	Simple One-Step Synthesis of Aromatic-Rich Materials with High Concentrations of Hydrothermally Stable Catalytic Sites, Validated by NMR. Chemistry of Materials, 2014, 26, 5523-5532.	3.2	11
129	Solventâ€“Solid Interface of Acid Catalysts Studied by High Resolution MAS NMR. Journal of Physical Chemistry C, 2017, 121, 17226-17234.	1.5	11
130	Improving Selectivity of Toluic Acid from Biomass-Derived Coumalic Acid. ACS Sustainable Chemistry and Engineering, 2018, 6, 12855-12864.	3.2	11
131	Insights into the scalability of catalytic upgrading of biomass pyrolysis vapors using micro and bench-scale reactors. Sustainable Energy and Fuels, 2020, 4, 3780-3796.	2.5	11
132	Analysis of the Amorphous and Interphase Influence of Comononomer Loading on Polymer Properties toward Forwarding Bioadvantaged Copolyamides. Macromolecules, 2021, 54, 7910-7924.	2.2	11
133	One-Step Hydrogenation/Esterification Activity Enhancement Over Bifunctional Mesoporous Organicâ€“Inorganic Hybrid Silicas. Topics in Catalysis, 2013, 56, 1804-1813.	1.3	9
134	High activity Pd-Fe bimetallic catalysts for aqueous phase hydrogenations. Molecular Catalysis, 2019, 477, 110546.	1.0	8
135	Counteracting Rapid Catalyst Deactivation by Concomitant Temperature Increase during Catalytic Upgrading of Biomass Pyrolysis Vapors Using Solid Acid Catalysts. Catalysts, 2020, 10, 748.	1.6	8
136	Aqueous-Phase Processing of Bio-oil Model Compounds Over Ptâ€“Re Supported on Carbon. Topics in Catalysis, 2012, 55, 140-147.	1.3	7
137	Deactivation and regeneration of carbon supported Pt and Ru catalysts in aqueous phase hydrogenation of 2-pentanone. Catalysis Science and Technology, 2020, 10, 3047-3056.	2.1	7
138	Industrial Biotechnologyâ€"An Industry at an Inflection Point. Industrial Biotechnology, 2020, 16, 321-332.	0.5	7
139	Bioenabled Platform to Access Polyamides with Built-In Target Properties. Journal of the American Chemical Society, 2022, 144, 9548-9553.	6.6	7
140	Across the Board: Brentâ€…H. Shanks. ChemSusChem, 2015, 8, 928-930.	3.6	6
141	Development of a Combined Catalyst and Sorbent for the Water Gas Shift Reaction. Industrial & Engineering Chemistry Research, 2014, 53, 9570-9577.	1.8	5
142	Identification of bioprivileged molecules: expansion of a computational approach to broader molecular space. Molecular Systems Design and Engineering, 2021, 6, 445-460.	1.7	5
143	EXPERIMENTAL INVESTIGATIONS USING FEEDBACK-INDUCED BIFURCATION: CARBONMONOXIDE OXIDATION OVER SUPPORTED SILVER. Chemical Engineering Communications, 1987, 61, 127-149.	1.5	4
144	Directing Polyol Dehydration via Modification of Acid Catalysts with Metals. Topics in Catalysis, 2016, 59, 29-36.	1.3	4

#	Article	IF	Citations
145	Hydrogenation/Hydrodeoxygenation Selectivity Modulation by Cometal Addition to Palladium on Carbon-Coated Supports. ACS Sustainable Chemistry and Engineering, 2022, 10, 7759-7771.	3.2	4
146	Application of the feedback-induced bifurcation method to a catalytic reaction system. Chemical Engineering Science, 1989, 44, 901-913.	1.9	2
147	Aqueous-Phase Processing on Multi-Functional Compounds over Platinumâ€"Rhenium Supported on Carbon. Energy & Fuels, 2014, 28, 2123-2128.	2.5	2
148	Selective Ammonolysis of Bioderived Esters for Biobased Amide Synthesis. ACS Omega, 2021, 6, 30040-30049.	1.6	2
149	Intentional manipulation of closed-loop time delay for model validation using feedback-induced bifurcation. Chemical Engineering Science, 1989, 44, 161-170.	1.9	1